

## Exercise List 02 - Functions - Part 1

1. Write a python program with a function that will receive any quantity of integer numbers from the user. The function will stop receiving numbers when the user inserts the number zero. The function will return all the numbers received as a list.
2. Write a python program with a function that receives a sorted list  $L$  of integer numbers. The function then returns the median of  $L$ .

*For the following input:*

***[1, 3, 7, 12, 15, 17, 19]***

*The function should return:*

***12***

3. Write a python program with a function that receives a string of characters and return the reversed string.

*For the following input:*

***Input String***

*The function should return:*

***gnirtS tupnI***

4. Write a python program with a function that receives a list  $A$  of integer numbers and return a new list containing only one occurrence of each element from  $A$ .

*For the following input:*

***[2, 5, 6, 3, 8, 3, 6, 3, 4, 5, 1]***

*The function should return:*

***[2, 5, 6, 3, 8, 4, 5, 1]***

5. Write a python program with a function that receives a list  $B$  containing integer numbers and return a new list with only the even numbers in  $B$ .

*For the following input:*

***[2, 5, 6, 3, 8, 3, 6, 3, 4, 5, 1]***

*The function should return:*

***[2, 6, 8, 6, 4]***

6. Write a python program with a function that receives a number and check if the number is within the range  $[0, 55]$ . The function must return a boolean containing either **True** if the number is within the range or **False** otherwise.
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*For the following input:*

**7**

*The function should return:*

**True**

7. Write a python program with a function that receives a string of characters and check if the string is a palindrome. A palindrome is a sequence of characters or numbers which can be read forward or backwards with the same meaning. Examples of palindromes are: madam, ana and otto. The function must return a boolean containing either **True** if the word is a palindrome or **False** otherwise.

*For the following input:*

**arara**

*The function should return:*

**True**